

BRUCE

*Hardwood Flooring and
Lumber Products*

SCHOOLS



HOMES



GOVERNMENT



APARTMENTS



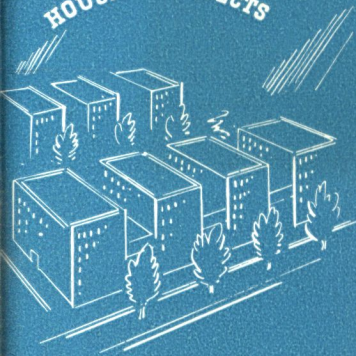
COMMERCIAL



INDUSTRIAL



HOUSING PROJECTS



INSTITUTIONAL



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E. L. BRUCE CO.

Memphis, Tenn.



BRUCE STRIP FLOORING

BRUCE STRIP HARDWOOD FLOORING

With modern flooring plants in six strategic locations, E. L. BRUCE CO. is the world's largest maker of hardwood floorings. Red Oak, White Oak, Maple and Beech are manufactured in all standard sizes and grades.

Bruce Strip Flooring is made from selected lumber that has been carefully and scientifically kiln-dried to the proper moisture content. The flooring machines are the best available, operated by skilled workmen. Each machine is continually inspected and adjusted to insure accurately manufactured

flooring that will lay easily and fit properly. The grading on Bruce Flooring is uniform and dependable.

Bruce Strip Flooring is sold through leading retail lumber dealers everywhere. Large stocks are carried in wholesale distributing warehouses in every section of the country.

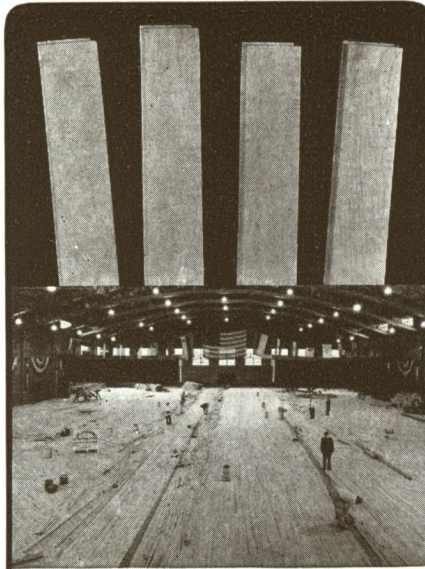
Bruce Oak and Beech Floorings carry grading certificates of the National Oak Flooring Manufacturers' Association. Bruce Northern Hard Maple Flooring, manufactured at the Reed City, Michigan Plant, carries the Maple Flooring Manufacturers' Association stamp of approval.

[See General Specifications for Hardwood Floors on Page 10]



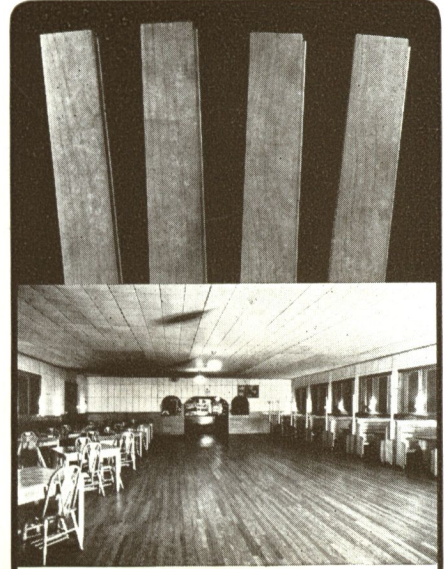
OAK is the most universally popular of all floorings, offering an ideal combination of beauty and durability which adapts it for use in almost any floor area.

Sizes: $\frac{3}{4}$ " x $3\frac{1}{4}$ ", $\frac{3}{4}$ " x $2\frac{1}{4}$ ", $\frac{3}{4}$ " x 2", $\frac{3}{4}$ " x $1\frac{1}{2}$ ", $\frac{1}{2}$ " x 2", $\frac{1}{2}$ " x $1\frac{1}{2}$ ", $\frac{3}{8}$ " x 2", $\frac{3}{8}$ " x $1\frac{1}{2}$ ", $\frac{1}{8}$ " x 2" (square edge). Grades: Clear Quartered White, Clear Quartered Red, Select Quartered White, Select Quartered Red, Clear Plain White, Clear Plain Red, Select Plain White, Select Plain Red, No. 1 Common White, No. 1 Common Red, No. 2 Common Mixed, No. 1 Com. & Better Shorts (10"-18").



MAPLE—This close-grained wood is particularly recommended for floors receiving unusual wear, such as schools, ballrooms, skating rinks, bowling alleys, shops, etc. Tests show that Maple is the most durable of all woods commonly used for flooring.

Sizes: $\frac{3}{4}$ " x $3\frac{1}{4}$ ", $\frac{3}{4}$ " x $2\frac{1}{4}$ ", $\frac{3}{4}$ " x 2", $\frac{3}{4}$ " x $1\frac{1}{2}$ ", $\frac{3}{32}$ " x $3\frac{1}{4}$ ", $\frac{3}{32}$ " x $2\frac{1}{4}$ ", $\frac{3}{32}$ " x 2", $\frac{3}{32}$ " x $1\frac{1}{2}$ ", $\frac{3}{8}$ " x 2", $\frac{3}{8}$ " x $1\frac{1}{2}$ ", $\frac{3}{8}$ " x $3\frac{1}{2}$ " (jointed), $\frac{3}{32}$ " x $3\frac{1}{2}$ " (jointed). Grades: First White, First Grade, Second Grade, Third Grade, Second and Better.



BEECH—In physical properties Beech is very similar to Maple. However, it shows slightly more grain pattern and has more natural color. Suitable for residence use, as well as for hard service in commercial and public buildings. During the past two years there has been a great increase in architects' specifications of Beech Flooring.

Sizes: $\frac{3}{4}$ " x $3\frac{1}{4}$ ", $\frac{3}{4}$ " x $2\frac{1}{4}$ ", $\frac{3}{4}$ " x $1\frac{1}{2}$ ". Grades: First Red Beech, First Beech, Second Beech, Third Beech, Second and Better, Third and Better Shorts (10"-18").

FINISHING HARDWOOD FLOORS



Surface finishes should never be used on hardwood floors, because they form a thin brittle film on top of the wood that soon scratches and wears off. The recommended method of finishing is with Bruce Floor Finish, a penetrating seal that is durable, beautiful, and easy to maintain. (A special section on Bruce Floor Finishes will be found on Page 9.)

LITERATURE AND DATA



Complete printed information and installation instructions on Bruce Strip Floorings are available on request. If advised the kind of flooring you are interested in and the type of area in which it is to be used, we will be able to furnish specific data that will be of value. (See General Specifications for Hardwood Floors on page 10.)

BRUCE SOLID OAK PLANKS

BRUCE SOLID OAK FLOOR PLANKS

Years ago, in the "handcraft era," floors were built of solid oak planks, rough hewn and varying in widths and lengths. Such floors characterize the architecture of Renaissance Italy, France and Spain, Elizabethan England and Colonial America. Today, Bruce Solid Oak Planks adapt this historical floor to the modern home. They conform to decorative requirements as to nicety of workmanship, but retain the "casual" effect which contributed so much to the charm of the plank floor of our forefathers. Bruce Solid Oak Floor Planks are solid, durable, genuine. They are sterling reproductions of the early "random" floorings.

Styles, Sizes, Woods and Grades

Plank floors may be laid in any of several authentic styles. They may be of varying widths; or, for the more formal interior, of equal widths. Bruce Floor Planks are available in White Oak or Red Oak (plain or quarter sawn); widths of planks—4, 6 and 8 in., with closefitting tongues and grooves on both sides and ends. They can be obtained with $\frac{1}{8}$ in. beveled edges, or with square edges. The beveled edges are of great decorative value in defining individual boards and emphasizing the widths of the planks. The use of walnut or oak plugs and butterfly keys adds a further unique and interesting touch to a Bruce Plank Floor.

Advantages of Bruce Planks

The lumber for Bruce Oak Planks is especially selected straight stock, kiln-dried in modern dry kilns. This flooring is made on special heavy-duty machinery, the largest in use for this purpose. This insures uniform thickness and width, a most important feature. Much plank flooring is made on moulders or light-weight machines which cannot give precision manufacture. Bruce Oak Planks are *both* end-matched *and* side-matched. Bruce is the *only* plank flooring manufacturer to offer special nails, screws and spacer blades to assist in the proper installation of plank floors.



3 GRADES OF BRUCE PLANKS

Bruce "Mansion" Grade

The most uniform in appearance of the three distinctive grades of Bruce Oak Planks

Bruce "Fireside" Grade

Has a limited amount of interesting grade characteristics, such as small tight knots, stains, streaks, etc.

Bruce "Tavern" Grade

Possesses a rich abundance of irregularities and character marks which add to the beauty of the finished floor

LITERATURE

Write E. L. BRUCE Co., Memphis, Tenn., for "Plank Floors— as Crafted by Bruce," a 16-page A.I.A. size booklet in full colors. Also available on request: Leaflet "Historic Plank Floors for the Home of Today," and Application Instructions—Bruce Floor Planks.



The wide surfaces of Solid Oak Planks emphasize the natural beauty of hardwood, making the floor a distinct element in room decoration.

(C) SPECIFICATIONS FOR LAYING BRUCE SOLID OAK PLANK FLOORS

(Also see General Specifications for Hardwood Floors on page 10.)

(C1) Sub-floors

(C1a) **New (Wood)**—Sub-floors shall be kiln-dried, and shall be made of 4 to 6-in. dressed stock, not less than thirteen-sixteenths of an in. ($\frac{13}{16}$ in.) thick, laid diagonally on floor joists not more than sixteen inches (16 in.) on centers. Sub-floors must present an even bearing surface and shall be double face-nailed, preferably with cement-coated eight-penny nails. Sub-floor must be dry at time of top-floor application, as any shrinkage will affect the top-floor.

(C1b) **Old (Wood) Sub-floors or Floors**—All conditions applicable to new wood sub-floors shall apply. All rotten, splintered, weakened or warped boards shall be replaced. All loose nails shall be drawn out and re-nailed.

(C2) Laying

(C2a) All Bruce Solid Oak Planks shall be laid in strict accordance with directions applying to the particular installation as set forth in the current edition of manufacturer's "Application Instructions—Bruce Floor Planks." Particular attention must be given to instructions on allowance for expansion. In general, installation shall be as follows:

(C2b) Planks shall be blind nailed through the tongue every twelve inches (12 in.). In addition, planks shall be securely fastened through the face with screws and nails in accordance with the manufacturers' instructions. Screws shall be countersunk and covered with Bruce Walnut or Oak Plugs ($\frac{3}{4}$ in. diameter and $\frac{1}{4}$ in. thick) using waterproof glue. Nail indentures shall be filled with wood cement.

(Note: Nails and screws of the proper size and type and wood plugs can be furnished at a nominal charge by the manufacturer, E. L. BRUCE Co., on shipments of plank flooring.)

Important Note: Much greater precaution is necessary in laying Plank Flooring than is required for narrow strip flooring. The following points should be watched carefully and handled in strict accordance with the manufacturer's printed instructions. (1) In all except extremely dry climates (such as Arizona) a spacer blade (as furnished by the manufacturer, E. L. BRUCE Co., on all shipments of plank flooring) or other flat piece of steel at least one-thirty-second of an inch ($\frac{1}{32}$ in.) thick must be temporarily inserted in the lengthwise joint between the strips at the point of nailing. This provides some area between the strips for later expansion and is for the purpose of avoiding cupping and buckling. (2) New construction is necessarily damp. Allow a substantial period of drying with air circulation and artificial heat before application of floor. Sub-floors, joists, etc., must be thoroughly dry. (3) Construction which permits abnormal humidity is hazardous. Basements and areas between the floor and the earth must be generously ventilated. A damp condition cannot be permitted or trouble will result.

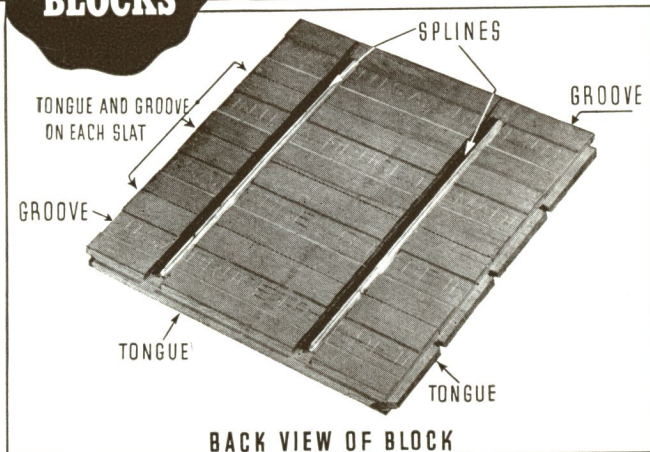
Laying Planks Over Concrete: Unless conditions are ideal, Planks should not be laid over concrete. Concrete in all cases must be membrane-waterproofed according to manufacturer's printed instructions and have a substantial period of drying with artificial heat. Over the membrane apply a Sub-floor Grade of Bruce Blocks laid in mastic. These will serve as an ideal sub-floor to which the Planks can be nailed and screwed in the regular manner. This method of application provides a quiet floor not subject to the drum effect resulting from the use of screeds over concrete.

IMPORTANT NOTICE

Bruce Planks can now be secured with a complete factory-finish (see page 8). The same methods and materials are used that have proved so successful on Bruce Finished Blocks. Write for information and literature on Bruce Finished Planks.

BRUCE BLOCKS

PATTERNED HARDWOOD FLOORS



TECHNICAL FEATURES OF BRUCE BLOCK

(A Bruce Block (Mastic) is pictured above. The Bruce Block (Nail) has drilled nail-holes in the tongues.)

The Bruce Block is made from strips of flooring, bound together by steel splines imbedded in the back of block—which prevent vertical or longitudinal movement, while permitting the slats to expand or contract individually. (A solid or laminated piece of wood, or pieces positively joined together by glue or otherwise, would shrink or expand as a unit.) In a Bruce Block there is a tongue and groove on every slat of the block as well as two tongues and two grooves on the outer edges of each block. The tongues are a part of the wood itself, not separate slip tongues. This construction makes a perfectly integrated block and a perfectly integrated block floor.

INSTALLATION BY NAILING



The Bruce Block (Nail) is specifically designed for nailing over wood subfloors or old wood floors. An equal number of right-tongue and left-tongue blocks is shipped on each order, so that tongues are always exposed for blind nailing as the floor is laid. The tongues have drilled nail-holes, which facilitate nailing and prevent splitting, and which are so spaced that nails will hold the blocks firmly in place.

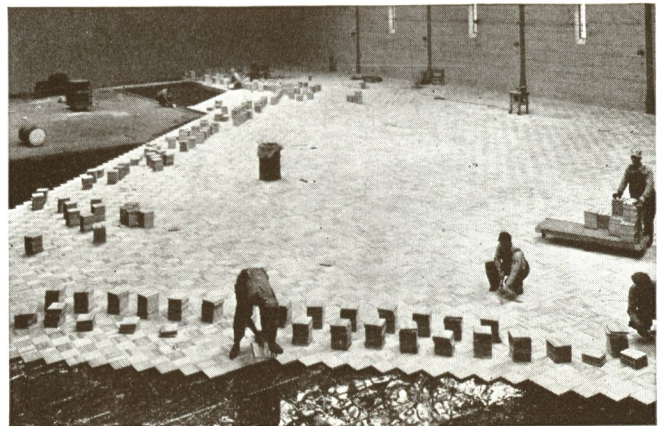
Bruce Blocks can easily be installed by following simple directions. They are nailed like strip flooring, and no extra equipment or especially trained mechanics are required. The Bruce Block (Nail) makes it practical to use Block floors in homes, apartments, and other areas with wood subfloors; whereas, in the past, the use of these distinctive floors has been restricted mainly to large areas where they could be laid in mastic over concrete subfloors. (See Specifications, page 10. Also refer to Installation Manual for Bruce Wood Block Floors.)

INSTALLATION IN MASTIC

Bruce Blocks (Mastic) are laid in Everbond X Floor Mastic. (See page 11.) This type of installation is to be used where there is a concrete, steel or similar subfloor. Installation of blocks in mastic over a wood subfloor is usually not recommended, the logical method of application over a wood subfloor being by nailing. (See Specifications for Laying Bruce Block Floors on page 10.)

The application of the Blocks in Everbond X provides a substantial thickness of mastic between the blocks and the concrete or other subfloor, and thereby furnishes an insect-deterrent under-layer of material. The bed of Everbond also acts as a cushion and provides a quiet and resilient floor.

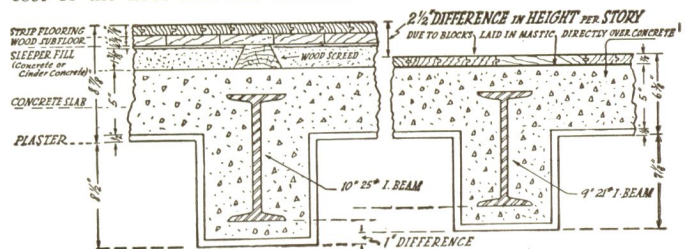
Other advantages of a Bruce Block Floor laid in mastic are: (1) Elimination of possibility of rotting screeds. (2) Very sanitary, being laid directly over subfloor with no air space underneath. (3) Less fire hazard; test fires built on this type of floor would not spread. (4) Saving in construction costs. (See diagram and explanation below.)



ECONOMY IN LAYING OVER CONCRETE

Bruce Blocks, laid in Everbond X Mastic directly over concrete, save the material and labor cost of wood subfloor, screeds and cinder fill; also approximately 2½ in. height per story, without loss of headroom.

In large areas this combined saving sometimes exceeds the entire cost of the floor laid and finished.



MODERNIZING WITH BRUCE BLOCKS

The pictures below indicate how easily Bruce Blocks can be installed over old floors, either by nailing or by laying in mastic. In these two cases, Bruce Finished Blocks were used—and the floors were laid without disturbing the occupants or interrupting business routine. "When it's laid, it's finished."



BRUCE BLOCKS

PATTERNED HARDWOOD FLOORS

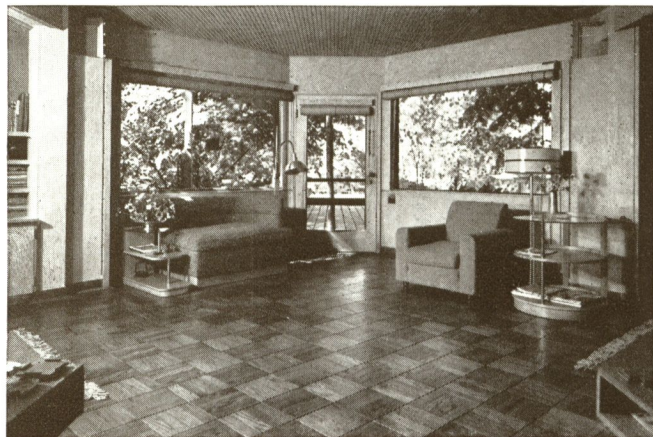
BRUCE BLOCK FLOORS
HAVE BEEN WIDELY USED IN

Residences
Apartments
Offices
Stores
Hotels

Ballrooms
Hospitals
Schools
Gymnasiums
Factories

Banks
Post Offices
Churches
Clubs
Colleges

Millions of feet of Bruce Blocks are now giving service and satisfaction in structures of all types.



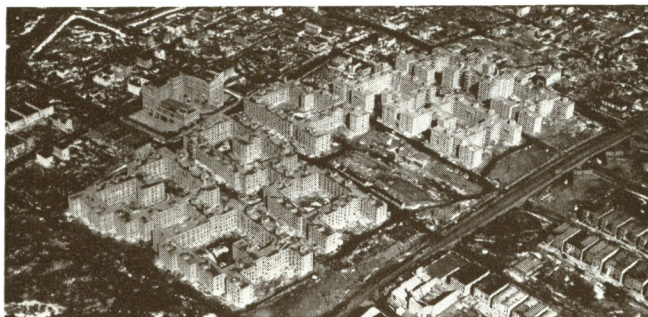
RESIDENCE—Bruce Select Plain Red Oak Blocks in Birchwood Beach, Mich. House
JOHN LLOYD WRIGHT, Architect



OFFICE—Bruce First Black Walnut Blocks in Private Office—Max Factor Studios, Hollywood, Cal.
S. CHARLES LEE, Architect



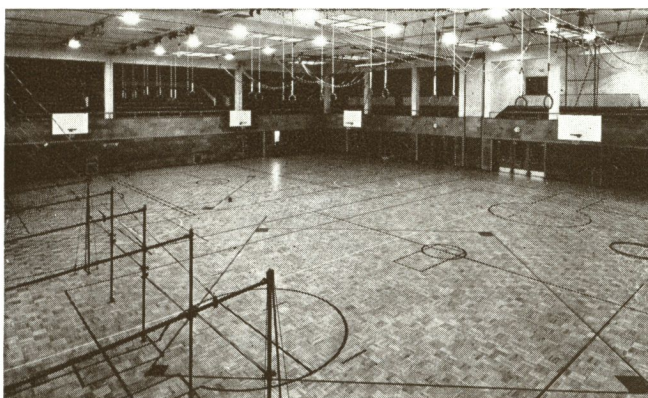
STORE—Bruce Select Red Oak Blocks (50,000 Sq. Ft.) Lowenstein's Department Store, Memphis, Tenn. This factory-finished floor was laid without interrupting business.



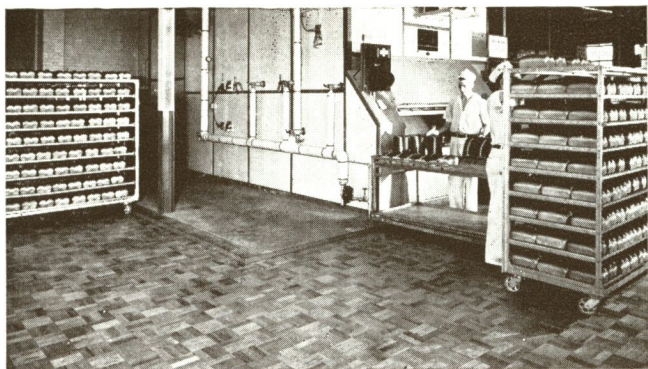
HOUSING PROJECT—750,000 Sq. Ft. Bruce Oak Blocks Installed in the 1388 Apartments in the Hillside Housing Development, Bronx, N. Y.
CLARENCE S. STEIN and FRANK E. VITOLO, Architects



CLUB—Bruce First Maple Blocks in Special Design at Club Casanova, Hollywood, Cal.



GYMNASIUM—Bruce Second Maple Blocks (31,000 Sq. Ft.) in Rufus King High School, Milwaukee, Wis.
G. E. WILEY, Architect



BAKERY—Bruce Second Maple Blocks in Colonial Baking Co., Indianapolis, Ind.
D. A. BOHLEN & SONS, Architects

BRUCE BLOCKS

PATTERNED HARDWOOD OFFERS

This is a flooring beautiful and distinctive enough for the finest homes, yet durable and economical enough for commercial and public areas. Manufactured in Oak, Maple, Beech and Walnut—in all standard flooring grades—Bruce Blocks offer almost unlimited choice from the standpoint of purpose, decorative effect, and cost. Following are a few of the many advantages of this modern type of hardwood flooring:

BEAUTY

- No other material can approach the beauty of wood. Add to this the simple charm of the Bruce Block design, and you have floors of distinction and character. The natural beauty of hardwood is enhanced in a rich new setting.

DISTINCTIVE DECORATION

- Bruce Blocks possess all the requisites of an ideal decorative material. Strikingly distinctive and unusual in appearance, they give style to floors and enhance the beauty of interiors.

WARMTH-QUIET

- Warmth is essential in a floor, for the sake of comfort, health and economy. The high heat-insulating value of a hardwood floor is well known. Furthermore, a Bruce Block Floor is quiet and sound-absorbing.

DURABILITY

- These patented Blocks are fabricated from regular full-thickness hardwood strip flooring, firmly fastened together with steel splines, and have interlocking tongues and grooves. The result: A floor that will ordinarily last "the lifetime of a building."

EASY MAINTENANCE

- A Bruce Block Floor can be maintained at a cost less than that for almost all substitutes for hardwood flooring. In case of unusual wear or accidental damage worn portions can be replaced inexpensively and easily.

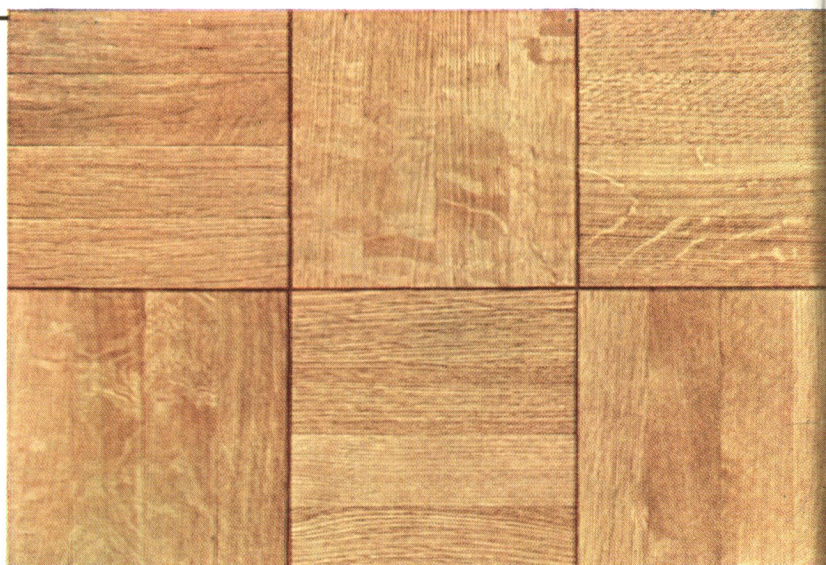
A WORD ABOUT COST

- In large areas, the cost of a Bruce Block Floor is often less than for ordinary floors. (See diagram on page 4.) In homes and other small areas the added cost is usually no more than a few dollars per room. The lower-priced grades of Bruce Blocks can be used without sacrificing beauty.

ADVANTAGES OF BRUCE FINISHED BLOCKS

For over four years E. L. Bruce Co. has been factory-finishing Bruce Blocks with amazing results. The finish is superior in beauty and durability, and cannot be duplicated by ordinary methods. Furthermore, factory-finishing eliminates mess and inconvenience on the job—a particularly important factor in remodeling work. It makes it possible for the owner to know, in advance, exactly how the completed floor will look. (See page 8 for description of factory-finishing process.)

**All the floor sections pictured are composed of Bruce Finished Blocks (factory-finished), except the Maple which was finished by regular methods used after installation.*



OAK (Clear Quartered White)—LIGHT FINISH



OAK (No. 1 Common Red)—MEDIUM FINISH



OAK ("Arabesque" Grade)—DARK FINISH

Every Quality of an Ideal Floor



OAK (Select White)—ALTERNATE LIGHT AND DARK FINISH



MAPLE (First Grade)—NATURAL FINISH*



WALNUT (First Black)—NATURAL FINISH

WOODS, GRADES, SIZES

OAK

Clear Qtd. White	Select Plain White
Clear Qtd. Red	Select Plain Red
Select Qtd. White	No. 1 Com. White
Select Qtd. Red	No. 1 Com. Red
Clear Plain White	No. 2 Com. Mixed
Clear Plain Red	Arabesque
	Economy

BEECH

First Red	Second
First	Third
	Economy

MAPLE

First White	Second and Better
First	Third
Second	Economy

WALNUT

First Black	Second
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TABLE OF SIZES

Strip Size	$2\frac{5}{8} \times 2\frac{1}{4}$ "	$2\frac{5}{8} \times 1\frac{1}{2}$ "	$\frac{1}{2} \times 2$ "
Block Size	$6\frac{3}{4} \times 6\frac{3}{4}$ " 9×9 " $11\frac{1}{4} \times 11\frac{1}{4}$ " $6\frac{3}{4} \times 13\frac{1}{2}$ "	$7\frac{1}{2} \times 7\frac{1}{4}$ " 9×9 "	8×8 " 10×10 "

Strip Size	$\frac{1}{2} \times 1\frac{1}{2}$ "	$3\frac{3}{8} \times 2\frac{1}{4}$ "	$3\frac{3}{8} \times 1\frac{1}{2}$ "
Block Size	$7\frac{1}{2} \times 7\frac{1}{2}$ " 9×9 "	$6\frac{3}{4} \times 6\frac{3}{4}$ " 9×9 " $11\frac{1}{4} \times 11\frac{1}{4}$ " $6\frac{3}{4} \times 13\frac{1}{2}$ "	$7\frac{1}{2} \times 7\frac{1}{2}$ " 9×9 "

FINISHES

Bruce Finished Blocks are completely finished by machine, even to waxing and polishing (*See page 8*). Oak, in any grade, can be finished Light, Medium or Dark—as specified. Maple, Beech and Walnut are finished in natural shades only. An added feature of the Bruce Finished Block is the beveled edges, which form small V-joints in the floor and emphasize the patterned design. *UNFINISHED BLOCKS—Bruce Blocks in any of the woods, grades, and sizes listed can be obtained *unfinished*, to be finished after installation. Unfinished Blocks are manufactured with square edges (unbeveled) as illustrated by the section of Maple Blocks on this page.

LITERATURE AND DATA

Architects' Data Sheets, loose leaf A.I.A. file size.
Illustrated Booklet—"Patterned Hardwood Floors."
Installation Manual for Bruce Mastic and Nail Blocks.
Brochure of Photographs of Bruce Block Floors.
Leaflet—"Here's Grand News."
Sample of Bruce Block furnished on request.

FACTORY FINISHED FLOORING

PREFINISHED BLOCKS AND PLANKS

Bruce Blocks and Bruce Planks (see pages 3-7 in this section) may be obtained completely finished at the factory by the methods briefly described and pictured below. Oak is finished Light, Medium or Dark—as specified. Maple, Beech and Walnut are finished in Natural Shade only. Bruce Finished Flooring is manufactured with slightly beveled edges. This emphasizes the floor design and has the practical purpose of preventing any appearance of unevenness due to slight irregularities in the subfloor.

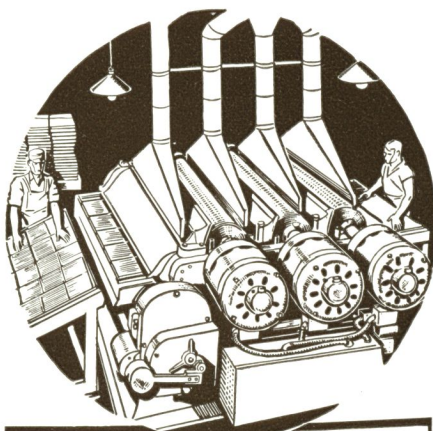
ADVANTAGES OF PREFINISHING

First, the factory-finish is more beautiful, uniform, and durable than could possibly be secured by ordinary methods.

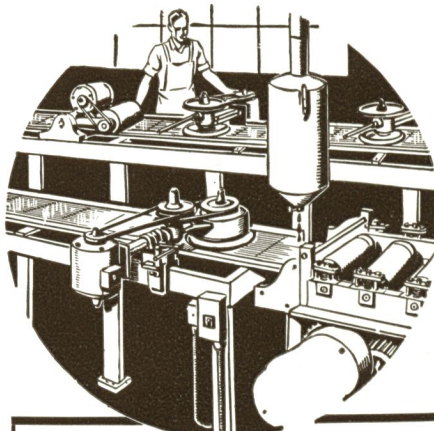
Second, the owner can see in advance exactly how the finish will appear, can select the shade desired. Third, the noise and mess of finishing on the job are eliminated. Fourth, considerable time is saved.

IDEAL FOR REMODELING JOBS

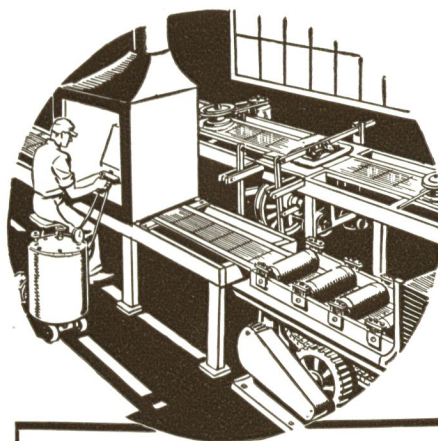
With Bruce Finished Flooring it is possible to lay a new Block or Plank floor over an old floor without inconvenience to occupants. Furniture and fixtures can be moved to one side while one section of flooring is being laid, and then moved back while the balance of the room is being completed. Entire floors of commercial buildings have been refloored with Bruce Finished Flooring "while business went on as usual."



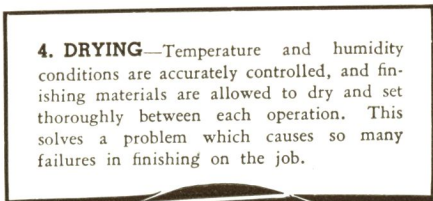
1. SANDING—First, the flooring is sanded to proper smoothness on a machine of the type used on fine furniture parts. No other method could give such a uniform surface. Sanding is one of the most important steps in floor finishing.



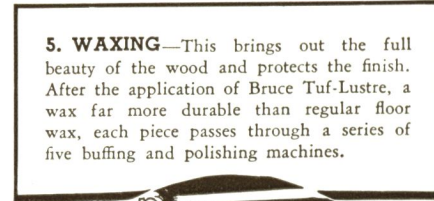
2. FINISHING—A penetrating-seal type of finish (Bruce Floor Finish) recommended by both hardwood flooring associations is used exclusively. This finish is imbedded in the wood and will not crack or peel like ordinary surface finishes.



3. FILLING—Next, a paste wood filler is pressure-applied, rubbed in, and buffed by machine. If the flooring is to be finished in a Medium or Dark shade, a stain of highest quality is added to the filler. This filling and staining is always uniform.



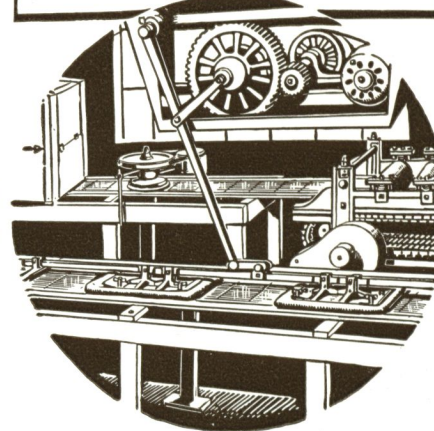
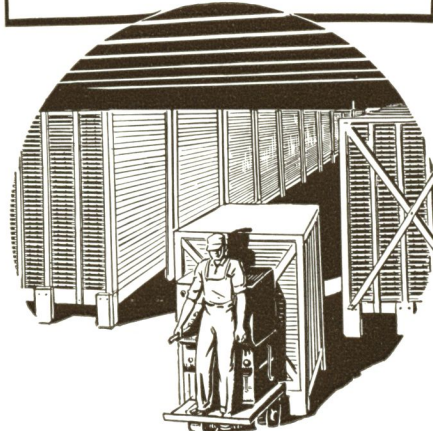
4. DRYING—Temperature and humidity conditions are accurately controlled, and finishing materials are allowed to dry and set thoroughly between each operation. This solves a problem which causes so many failures in finishing on the job.



5. WAXING—This brings out the full beauty of the wood and protects the finish. After the application of Bruce Tuf-Lustre, a wax far more durable than regular floor wax, each piece passes through a series of five buffing and polishing machines.



6. PACKAGING—This last step in the factory insures the flooring reaching its destination in perfect condition. After a final inspection, it is packaged in sealed cartons and is then ready for delivery and installation.



BRUCE FLOOR FINISHES

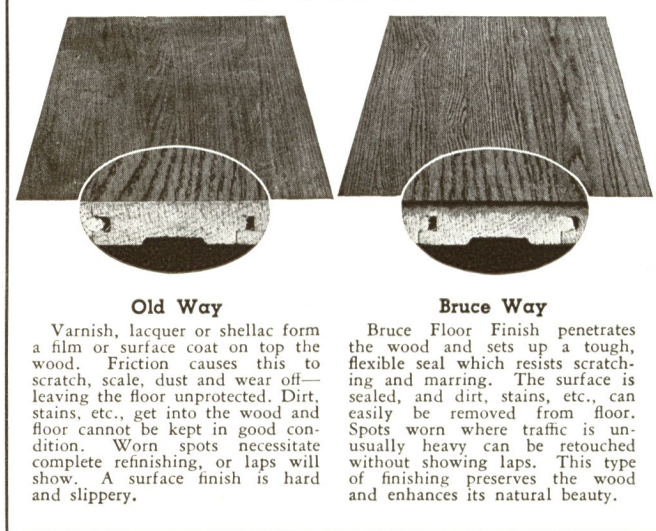
FLOOR FINISHES, WAXES, POLISH, CLEANER

The beauty and durability of floors depend on the method of finishing as well as on the quality of the flooring. Therefore, the world's largest maker of hardwood floorings, E. L. BRUCE CO., has a natural interest in the proper finishing of floors.

After years of research, experimentation and observation, this company has developed the Bruce Penetrating Seal Method of finishing wood floors. This superior method has now been successfully used and tested for over eight years on floors of all types throughout the country. The materials involved are the same that have proved so satisfactory in the prefinishing of Bruce Factory Finished Flooring. (See page 8.)

"Bruce-Way" Floor Finishing has been approved by the National Oak Flooring Manufacturers' Association and the Maple Flooring Manufacturers' Association. Neither of these associations approves any type of finish other than a penetrating seal.

ADVANTAGES



Old Way

Varnish, lacquer or shellac form a film or surface coat on top of the wood. Friction causes this to scratch, scale, dust and wear off—leaving the floor unprotected. Dirt, stains, etc., get into the wood and floor cannot be kept in good condition. Worn spots necessitate complete refinishing, or laps will show. A surface finish is hard and slippery.

Bruce Way

Bruce Floor Finish penetrates the wood and sets up a tough, flexible seal which resists scratching and marring. The surface is sealed, and dirt, stains, etc., can easily be removed from floor. Spots worn where traffic is unusually heavy can be retouched without showing laps. This type of finishing preserves the wood and enhances its natural beauty.

BRIEF SPECIFICATIONS

Materials and Work Included

The floors in the following areas shall be finished with Bruce Floor Finish (and Bruce Tuf-Lustre or Bruce Wax) as manufactured by E. L. BRUCE CO., Memphis, Tenn., in strict accordance with their directions: (*Here list and locate areas.*)

Preparatory

Sanding, filling and other preparatory work is so important to the success of the subsequent finishing that no attempt should be made to summarize these operations. "How to Finish and Maintain Wood Floors," available from E. L. BRUCE CO., Memphis, Tenn., contains detailed recommendations applying to various types of old and new floors.

Application

On floors in large areas—such as stores, schools, ballrooms, public buildings, etc.—where a waxed surface is not desired, instruct that floors be finished with Bruce Floor Finish in strict accordance with manufacturers' detailed directions applying to the particular type of floor. In the case of residence, office or apartment floors, instruct that floor be finished with Bruce Floor Finish and afterwards waxed with Bruce Tuf-Lustre or Bruce Wax according to manufacturer's instructions. Gymnasium floors should be finished with Bruce Gymnasium Finish.

BRUCE FLOOR FINISH

A combination of vegetable oils, varnish gums, and quick-acting solvents which give penetration, durability and resistance to moisture. Does not darken the wood and forms a non-slippery surface. Covers approximately 1000 sq. ft. per gallon one coat, and only one coat is needed in most instances.



BRUCE TUF-LUSTRE

A varnish-aided liquid wax which acts as a preservative and polish when applied over floor finish or varnish. It dries quickly, does not become brittle, and tests show that it has three times the durability of regular floor wax. Gives a non-slippery surface which may be readily cleaned by dry sweeping. Covers 1000 sq. ft. per gallon first coat and 2000 sq. ft. for second coat.

BRUCE PREPARED PASTE WAX

This improved type of paste wax is especially recommended for hardwood floors. Can be applied over penetrating seal, filler, lacquer, varnish, shellac or paint. Produces a lustrous surface that is easy to maintain, hard to mar. Can also be used on linoleum, composition, tile and marble floors, and on furniture.

BRUCE FLOOR POLISH

A self-polishing liquid emulsion of Carnauba Wax. It is impervious to oil and grease and emphasizes the color and grain in the finished floor. Requires no polishing to produce a lustre; dries hard in twenty minutes. Recommended also for linoleum, asphalt tile, and other composition floorings. Covers 1000 sq. ft. per gallon.

BRUCE FLOOR CLEANER

A liquid cleaner which will remove wax and dirt on a floor without injuring the finish beneath. Dries rapidly and leaves an extremely thin film of wax on the surface. To be used on wood surfaces only, and not on rubber tile, linoleum, etc. Easy to use. Covers 1500 sq. ft. per gallon.

BRUCE GYMNASIUM FINISH

A finish with 100% Bakelite base, designed for use on gymnasium floors. Bruce Gymnasium Floor Finish resists the action of rubber burns, acids and perspiration. Very durable and easy to maintain. Covers 500 sq. ft. per gallon on first coat, 600 sq. ft. on second coat, and 700 sq. ft. on third coat.



In the Chicago Post Office over 2,000,000 sq. ft. of Oak and Maple Flooring (in offices and working areas) were finished with Bruce Floor Finishes.

GENERAL SPECIFICATIONS

GENERAL SPECIFICATIONS FOR HARDWOOD FLOORS

GENERAL SPECIFICATIONS FOR HARDWOOD FLOORS

(Nail Block, Mastic Block, Plank or Strip)

(1) General Conditions

The General Conditions governing the General Contract shall apply to the work under this division of the specifications. *Note: The American Institute of Architects' standard form of General Conditions is advocated.*

(2) Work Included

The work included under this heading shall be the furnishing, laying (and finishing) of hardwood flooring in the following areas:

Note: Here list and locate the areas. If factory-finished flooring is to be used, omit reference to finishing as none is required.

(3) Preliminary Provisions

Provision made under other specifications that all subfloors, trim, etc. shall be installed in accordance with specifications of E. L. BRUCE CO.

(4) Inspection and Cleaning

(4a) **Inspection**—Before laying the flooring this contractor shall carefully inspect all sub-floors, erected trim, etc. and shall notify the architect promptly in writing of any defects which will in any way deleteriously affect the flooring installation. Failure to so notify the architect of these defects will be construed as acceptance of the work as executed and full responsibility for the finished results.

(4b) **Cleaning**—Thoroughly clean all sub-surfaces of dust or other foreign matter before laying the floor.

(5) Materials

(5a) **Flooring**—Finished floors shall be (here specify whether Bruce Block, Bruce Strip or Bruce Plank Flooring is to be used) as manufactured by E. L. BRUCE Co. of Memphis, Tenn. Sizes, thicknesses and varieties of wood shall be as listed in paragraph (6).

(5b) **Finish**—*Note: No finishing to be done if factory-finished flooring is to be used. If unfinished flooring is used, here specify the stains, fillers, finishes, etc. selected. We recommend penetrating finishes such as manufactured by E. L. BRUCE Co. (See page 9.)*

(6) Patterns, etc.

Note: Here list, locate and describe the various woods, grades, types, sizes and thicknesses of flooring to be used. If Bruce Blocks are to be used, indicate whether Nail or Mastic-Laid type and whether finished or unfinished.

(7) Laying

All flooring shall be laid in strict accordance with directions of E. L. BRUCE CO. applying to particular installation.

Note: Brief specifications covering installation of Bruce Nail Blocks and Bruce Mastic-Laid Blocks are given on this page. See page 3 for brief specifications on Bruce Solid Oak Planks. Complete instructions which must be followed in all cases will be furnished on request to E. L. BRUCE CO. Strip flooring should be laid in accordance with N.O.F.M.A. and M.F.M.A. standards.

(8) Sanding and Finishing

(Omit if factory-finished flooring is to be used.)

All floors shall be properly sanded, leaving a smooth surface without sander marks. *Note: Here specify the various steps in the finishing process. If the Bruce Penetrating Seal Method of finishing is specified, instruct that floors be finished in accordance with booklet, "How to Finish and Maintain Wood Floors the Bruce-Way."*

(9) Protection

During all stages of the work the flooring shall be adequately covered and protected from injury until completion and acceptance. It is advisable to delay the installation of floors until other craftsmen finish their work.

(A) SPECIFICATIONS FOR LAYING BRUCE BLOCK FLOORS BY NAILING

(A1) Sub-Floors

(A1a) **New (Wood)**—Solid wood sub-floors shall be thoroughly seasoned and dry, and shall be made of not wider than six-inch (6 in.) dressed stock, not less than thirteen-sixteenth inch ($\frac{13}{16}$ in.) thick; floor joists not more than sixteen inches (16 in.) on centers. Sub-floor must present an even bearing surface and shall be double face-nailed, preferably with cement-coated eight-penny nails. Place one layer of 15-pound tarred or asphalt felt between sub-floor and finished floor.

(A1b) **Old (Wood) Sub-Floors or Floors**—All conditions applicable to new wood sub-floors shall apply. All rotten, splintered, weakened or warped boards shall be replaced. All loose nails shall be drawn out and the boards re-nailed. Place one layer of 15-pound tarred or asphalt felt between sub-floor and finished floor.

(A2) Baseboards, Grounds and Plinths

(A2a) Grounds for baseboard shall be set parallel to and one and three-quarter inches ($1\frac{3}{4}$ in.) above sub-floor. No plastering between lower ground and sub-floor. All baseboards shall be set (after the Block Floor has been laid) so that there shall be one-quarter inch ($\frac{1}{4}$ in.) minimum clearance above top of finished block at all points. Plinth blocks shall be set to a clearance of one-eighth inch ($\frac{1}{8}$ in.)

(A2b) Base shoe moulds shall project beyond the face of the base at least three-quarters of an inch ($\frac{3}{4}$ in.) and shall be attached to the base-board only (not to the flooring) with a full one-sixteenth inch ($\frac{1}{16}$ in.) clearance between the surface of the finished floor and the underside of the shoe mould. Attach after flooring has been laid.

(A3) Pipe Collars

(A3a) All electric outlets, radiator connections, piping, etc., shall be provided with suitable collars to cover the necessary expansion area.

(A4) Laying

(A4a) All Bruce Nail Blocks shall be laid in strict accordance with directions applying to the particular installation as set forth in manufacturer's "Installation Manual for Bruce Wood Block Floors." In general, installation is as follows:

(A4b) Blocks shall be blind nailed in nail holes (using 6d casing nails for $\frac{3}{8}$ " Blocks; 4d casing nails for $\frac{1}{2}$ " Blocks) setting nail heads. Blocks at wall line shall be face nailed on the outer edges which will be covered by base shoe mould.

(B) SPECIFICATIONS FOR LAYING BRUCE BLOCK FLOORS IN MASTIC

(B1) Sub-floors

(B1a) **Concrete**—The topping, or finish coat of the concrete slab, shall be made as follows: Screed off the slab, removing any large rocks that might affect the surface, being careful not to "puddle" the mix until sloppy. Uniformly dust this freshly screeded concrete with a dry mixture of 50 per cent sand and cement. Trowel this dusted surface with a wood float or a leveling darby float to a uniform level finish without projections or depressions. Adequately protect this surface from injury until the concrete slab sub-floor has "set." Protect all sub-floors, as finished, against concrete or plaster droppings. Concrete shall be primed with one coat of Bruce Asphalt Priming Paint or equal, and allowed to dry before laying Blocks. *Note: It is hazardous to install Blocks over a slab surface which is likely to crumble or break bond. This applies particularly to a slab made of materials other than those used in standard concrete. This caution also applies to levelling compounds or other mixes applied over the surface, which lack proper cohesion and may break away from the base slab.*

(B1b) **Old Concrete**—All conditions applicable to new concrete sub-floors shall apply. If sub-floor does not meet requirements and presents an uneven bearing surface, it shall be leveled off in accordance with the specifications, which will be supplied by E. L. BRUCE CO.

(B1c) **Steel**—Steel shall be free from rust, dust, grease and loose foreign matter and free from any projection that might prevent uniform contact of the blocks with the sub-floor surface. Steel shall be primed with one coat of Bruce Asphalt Priming Paint or equal, and allowed to dry before laying Blocks.

(B2) Waterproofing

(B2a) All floors in direct contact with the ground or below grade, or sub-floors above grade where there is not sufficient ventilation to eliminate moisture condensation, shall be membrane waterproofed according to the following specifications: If only a portion of floor is ventilated, or if there is a basement under only a portion of the building, and balance of concrete slab is in direct contact with ground or not properly ventilated, the entire floor slab shall be membrane waterproofed.

(B2b) The concrete sub-floor shall be smooth, clean, dry and free from loose material and foreign matter.

(B2c) Over the concrete sub-floor a two-ply membrane waterproofing of (asphalt) (coal tar pitch) and (asphalt saturated) (tarred) felt shall be laid. *(Note: Select either "asphalt and asphalt saturated felt" or "coal tar pitch and tarred felt" as desired.)*

(B2d) Prime the concrete surface with asphalt primer before application of the membrane waterproofing. *Note: Include only if "asphalt and asphalt saturated felt" is specified.*

(B2e) Coat the entire surface of the concrete sub-floor with waterproofing pitch, into which, while hot, embed a layer of fifteen-pound saturated felt, lapping sheets seventeen inches (17 in.). A half sheet shall be used in starting so that a full two-ply membrane results at all points. The sheets shall be laid without wrinkles, buckles or blisters, and well rubbed into the hot pitch so that a complete bond is obtained between felt and sub-floor. Care shall be taken that the entire surface of the first layer of felt is mopped solid with hot pitch, so that in no place shall felt touch felt. Do not mop top layer. At all wall angles, columns, etc., the felt shall be laid in at a right angle and brought up the wall at least four inches (4 in.) above the finished floor behind the base.

(B3) Baseboard, Grounds and Plinths

(B4) Pipe Collars

Note: Provisions are same as set forth above in sections A2 and A3.

(B5) Laying

(B5a) Bruce Blocks shall be laid in strict accordance with directions applying to the particular installation as set forth in current edition of manufacturer's "Installation Manual for Bruce Wood Block Floors." In general, installation is as follows:

(B5b) In areas where the length greatly exceeds the width—particularly in hallways and corridors—blocks must be laid in diagonal pattern. This also applies to adjoining rooms where Blocks are laid in an unbroken stretch from one room into another. This minimizes the possible lengthwise expansion more than when the square pattern is used.

(B5c) Blocks shall be laid to a level surface bedded in Everbond X Mastic (see page 11) without the use of nails or screws. One gallon of Mastic shall be used to cover 25 to 30 ft. of floor area.

(B5d) Blocks shall be laid loose or tight, depending on the humidity conditions of the building and the condition of the sub-floor.

(B5e) Around the floor in an average size room allow a minimum expansion space of at least three-quarters of an inch ($\frac{3}{4}$ in.) on each side. In larger areas, figure the expansion space on the basis of one-sixteenth of an inch ($\frac{1}{16}$ in.) for each foot of width and length. The floor must not contact any vertical surface at any point, expansion areas being required. Expansion spaces, where concealed, should be half-filled with Everbond X, poured when hot. Where exposed, cork can be used.

OTHER BRUCE PRODUCTS

YELLOW PINE, EVERBOND X, CEDA'LINE, TERMINIX

BRUCE YELLOW PINE

Bruce Yellow Pine is available in all items of dimension, boards, siding, ceiling, flooring, finish, etc. It is manufactured from close-grained timber at two modern Bruce mills located in the heart of the Mississippi Yellow Pine belt. This stock is dried in the latest type of cross-circulating kilns to insure perfect seasoning. It is milled on most efficient machinery, and is double end-trimmed to insure

smooth square ends. As a protection to the building industry and the builder, Bruce Yellow Pine is stamped with our name. It is carefully graded and measures up to highest standards.

Many dealers stock Bruce Yellow Pine. They have found that it has the same dependability that has made Bruce Hardwood Flooring preferred throughout the building industry. This material can be secured from the mills either in straight carload lots or in mixed cars with items of hardwood flooring, moulding and trim, etc.

The Bruce mills specialize in small timber cuttings, and can furnish kiln-dried timbers up to size of 8"x8". Yellow Pine Finish and Trim is kiln-dried down to approximately 5% moisture content to give best results.

EVERBOND X FLOOR MASTIC



Everbond X is a newly perfected and improved mastic which sets up quickly and firmly. Has great adhesive and cohesive strength and bonds blocks solidly to sub-floor. Requires slight heating before application. Everbond X is strongly recommended as being more economical

to apply and more satisfactory in every way than cold application mastic. Covers approximately 25 sq. ft. to gallon. Adapted to application of any type of blocks, herringbone, or design oak flooring to be laid in mastic. (See page 10 for specifications on installation of Bruce Blocks in mastic.)

A COMPLETE LIST OF BRUCE PRODUCTS—Strip Flooring (Oak, Northern Hard Maple, Beech)—Block Flooring (Oak, Maple, Beech, Walnut)—Plank Flooring (Solid Oak)—Factory-Finished Flooring—Floor Finishes (Floor Finish, Tuf-Lustre, Wax, Cleaner, Polish, Gymnasium Finish)—Everbond X Floor Mastic—Ceda'line (Cedar Closet Lining)—Yellow Pine (Yard and Shed Stock, Timbers)—Hardwood Moulding and Trim (Stair Treads, Risers, Etc.)—Southern Hardwoods (Air Dried and Kiln Dried)—Hardwood Dimension—Bruce Preservatives—Terminix.

BRUCE CEDA'LINE

Ceda'line is cedar closet lining manufactured from the heartwood of Tennessee Aromatic Red Cedar, a wood which imparts an odor pleasing to humans but repellent to moths. With this beautiful material any closet can easily be made into a spacious cedar chest. Any carpenter can quickly install Ceda'line in old or new homes. In building a new home the cost of using Ceda'line in a closet is about the same as for lining it with ordinary lumber or lath and plaster.



Sizes— $\frac{3}{8} \times 2$ in., $\frac{3}{8} \times 2\frac{1}{2}$ in., $\frac{3}{8} \times 3\frac{1}{4}$ in. Ceda'line quarter-round and a special size for floors ($\frac{3}{8} \times 2\frac{1}{4}$ in.) also available. One grade only, permitting sound knots.

Application—Ceda'line is tongued, grooved and endmatched. Apply Ceda'line by blind nailing to studding over a layer of building paper. Furring strips should be used in applying over lath and plaster in old homes. Use no finish whatsoever, as varnish, paint, etc., destroy aromatic qualities. For maximum protection Ceda'line must be applied to the closet floors and back of doors, as well as to walls and ceilings. Doors must fit tightly.

BONDED TERMINIX INSULATION

Terminix, manufactured exclusively by Bruce, is a chemical applied only by Bruce-trained Terminix Application Companies for termite control in homes and buildings. Represented throughout 36 termite-infested States, offices in 150 cities, free termite inspections and reports without obligation. Performance by Terminix Licensees on every standard Terminix Contract for a period of five (5) years is guaranteed by E. L. BRUCE Co. This guaranty is fully insured by Sun Insurance Office Ltd., the world's oldest insurance company. Over 50,000 homes and buildings have been protected with Bonded Terminix Insulation.



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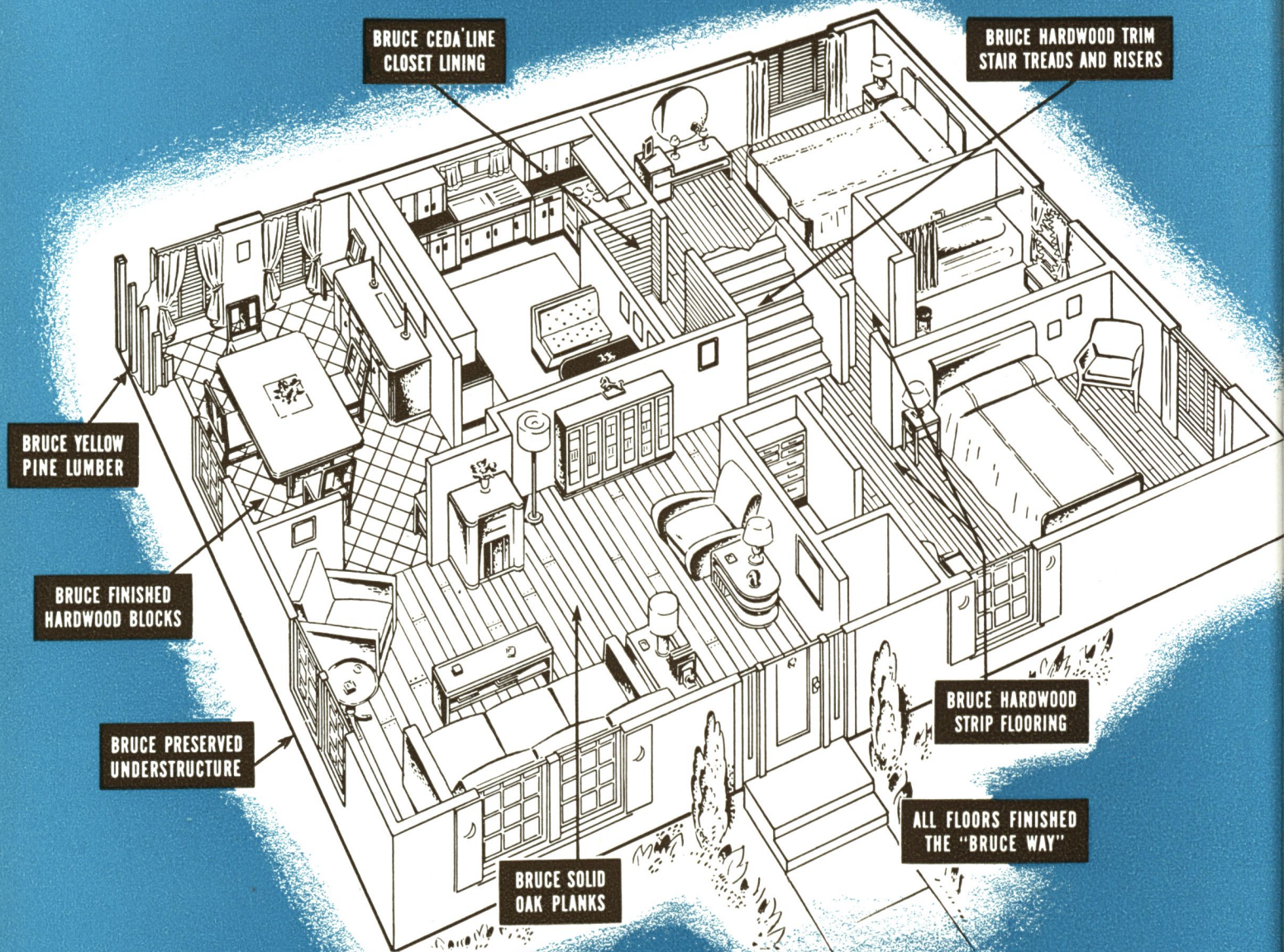
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